

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-12. (Canceled)

13. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and

wherein the surgical microscope further comprises a power supply for the device, and having a first electrically insulated wire for conducting a current to the device, and a second electrically insulated wire for conducting current back from the device, wherein the first and second conductors are each attached to a first arm of the stand at a first attachment position and attached to a second arm of the stand at a second attachment position, wherein the pair of electrically insulated wires is a twisted pair of wires.

14. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and wherein the surgical microscope comprises a power supply of the device,

wherein the power supply comprises:
an AC generator,
an induction transmitter supplied with operating power by the AC generator, the
induction transmitter being attached to a first arm of the stand, and
an induction receiver, the induction receiver being attached to a second arm of the
stand such as to face the induction transmitter and to be movable relative thereto, the second
arm being pivotally connected to the first arm, and
wherein the induction receiver supplies operating power to the device powered by
electrical current.

15. (Original) A surgical microscopy system, comprising:

a surgical microscope; and
a stand comprising a base and a plurality of pivotally connected arms, the surgical
microscope being mounted to one of the arms, wherein the pivotally connected arms are
arranged to be movable with respect to each other such that the surgical microscope is
movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and
wherein the surgical microscope comprises a power supply of the device,
the power supply comprising a contact rail disposed on a first arm and a sliding
contact disposed adjacent to the contact rail, wherein the sliding contact is disposed on a
second arm and wherein the second arm is pivotally connected to the first arm.

16. (Original) A surgical microscopy system, comprising:

a surgical microscope;
a stand comprising a base and a plurality of pivotally connected arms, the surgical
microscope being mounted to one of the arms, wherein the pivotally connected arms are
arranged to be movable with respect to each other such that the surgical microscope is
movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and

wherein the surgical microscope comprises a power supply of the device, and
wherein a mechanically supporting component of the stand is configured to form part
of a current path to or from the device powered by electrical current.

17. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical
microscope being mounted to one of the arms, wherein the pivotally connected arms are
arranged to be movable with respect to each other such that the surgical microscope is
movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and
wherein the surgical microscope comprises a power supply of the device, and

wherein the power supply comprises a radiation emitter disposed at a distance from
the surgical microscope and a radiation receiver disposed on at least one of the surgical
microscope and an arm of the stand, the radiation receiver being adapted to receive radiation
emitted by the radiation emitter and to transform the received radiation into an electrical
current.

18. (Original) The surgical microscopy system according to claim 17, wherein the radiation
emitter is a directional transmitter, and wherein a control unit is provided for setting a
direction of emission of the directional transmitter in dependence of a position of the
radiation receiver.

19. (Original) The surgical microscopy system according to claim 17, wherein the radiation
is at least one selected from infrared radiation, microwave radiation and laser radiation.

20. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical
microscope being mounted to one of the arms, wherein the pivotally connected arms are

arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base;

wherein the surgical microscope comprises a device powered by electrical current and wherein the surgical microscope comprises a power supply of the device, and

wherein the base of the stand is adapted to be disposed on a floor of a room, wherein the base comprises an induction receiver to be used in combination with at least one induction transmitter disposed on or in the floor of the room, and wherein the induction receiver supplies the device powered by the electrical current with operating power.

21. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system for transmitting data comprises at least a pair of wires, each wire being electrically insulated, which wires are each attached to a first arm of the stand at a first attachment position and attached to a second arm of the stand at a second attachment position, wherein the pair of electrically insulated wires is a twisted pair of wires.

22. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system comprises:

a transmitter attached to a first arm of the stand,

a data modulator connected to the transmitter,

a receiver attached to a second arm of the stand such that the receiver faces the transmitter and is movable with respect thereto, and

a data demodulator connected with the receiver.

23. (Original) The surgical microscopy system according to claim 22, wherein the transmitter comprises a induction transmitter and wherein the receiver comprises an induction receiver.

24. (Original) The surgical microscopy system according to claim 22, wherein the data demodulator is coupled to the data display unit.

25. (Original) The surgical microscopy system according to claim 22, wherein the data modulator is coupled to the data acquisition unit.

26. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system comprises a contact rail disposed on a first arm and a sliding contact disposed adjacent to the contact rail, wherein the sliding contact is disposed on a second arm and wherein the second arm is pivotally connected to the first arm.

27. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein a mechanically supporting component of the stand is configured to form part of a current path to or from the data acquisition unit or a data display unit, respectively.

28. (Original) The surgical microscopy system according to claim 27, wherein the data transmission system comprises a light guide.

29. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system comprises a light guide attached to at least one of the arms of the stand at a first attachment position.

30. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical

microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system comprises a waveguide arrangement for guiding electromagnetic waves, the waveguide arrangement extending across at least two adjacent arms of the stand.

31. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,

wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and

wherein the data transmission system comprises an optocoupler between two adjacent arms of the stand, which optocoupler transfers data from a first portion of the data transmission system on the first arm of the two adjacent arms to a second portion of the data transmission system on the second arm of the two adjacent arms.

32. (Original) A surgical microscopy system, comprising:

a surgical microscope;

a stand comprising a base and a plurality of pivotally connected arms, the surgical microscope being mounted to one of the arms, wherein the pivotally connected arms are arranged to be movable with respect to each other such that the surgical microscope is movable relative to the base; and

a data transmission system,
wherein the surgical microscope comprises at least one of a data acquisition unit and a data display unit, and
wherein the data transmission system comprises a data compressing unit for compressing data acquired by the data acquisition system and a data decompressing unit for decompressing the data to be displayed by the data display unit.

33. (Original) The surgical microscopy system according to claim 31, wherein the data to be transmitted comprise image data and wherein the data compressing unit and the data decompressing unit operate according to an MPEG4-process.

34. (Canceled)

35. (New) The surgical microscopy system of claim 16, further comprising:
at least one light emitter, mounted on the surgical microscope, for illuminating a field for surgery; and
a light guiding system for supplying light to the at least one light emitter,
wherein the at least one light emitter comprises at least one of a light generating semiconductor device mounted on the surgical microscope, an organic light generating device mounted on the surgical microscope, and a light emitting polymer device mounted on the surgical microscope.

36. (New) The surgical microscopy system of claim 35, wherein the organic light generating device is an organic light emitting diode.

37. (New) The surgical microscopy system of claim 35, further comprising at least one electrochemical cell mounted on the surgical microscope, the at least one electrochemical cell being provided for generating electrical power and supplying electrical power to the at least one light emitter.

38. (New) The surgical microscopy system of claim 37, comprising a pair of electrochemical cells which are independently removable from the surgical microscope.

39. (New) The surgical microscopy system of claim 37, wherein the electrochemical cell comprises a fuel cell.

40. (New) The surgical microscopy system of claim 35, comprising at least two semiconductor devices, wherein a first semiconductor device generates light of a wavelength range at least partially different from at least a wavelength range of light generated by a second semiconductor device.

41. (New) The surgical microscopy system of claim 40, wherein the light emitter comprises a light mixer configured such that the light generated by the at least two semiconductor devices is reflected a plurality of times before being emitted.

42. (New) The surgical microscopy system of claim 41, wherein the light mixer comprises a light guide, which is at least partially disposed around an objective lens of the surgical microscope, and wherein the light for illuminating the field for surgery is emitted by the light guide.

43. (New) The surgical microscopy system of claim 16, wherein said power supply further comprises a contact rail disposed on a first arm and a sliding contact disposed adjacent to the contact rail, wherein the sliding contact is disposed on a second arm and wherein the second arm is pivotally connected to the first arm.

44. (New) The surgical microscopy system of claim 16, wherein the base of the stand is adapted to be disposed on a floor of a room, wherein the base comprises an induction receiver to be used in combination with at least one induction transmitter disposed on or in the floor of the room, and wherein the induction receiver supplies the device powered by the electrical current with operating power.